

# Internal Review Checklist

N-number of this completed checklist: ISO TC184/SC4/WG3 N1076

Name of person who completed this checklist Jesse L. Crusey

Date this checklist was completed 5/3/01

## Document reviewed

Standard 10303

Part 332

Edition First

Stage publication as TS

N-number: ISO TC184/SC4/WG3 N1075

This checklist is an annex to the document "Procedures for Internal Review." The annex is intended to provide quality assessment criteria for developers of SC4 standards. The body of the document details correspondence between the categories of criteria herein and the different types of standards produced by SC4. The current version of the document is available at [http://www.nist.gov/sc4/howto/checklist/int\\_rev/current.htm](http://www.nist.gov/sc4/howto/checklist/int_rev/current.htm).

For each question, check the box that applies. If "N/A" (not applicable) is checked, explain the reason the question is not applicable in the comment field.

## COPYRIGHT

If the part is at Stage 4 (DIS) or higher the following items shall be examined and the box checked:

YES NO N/A

- |                                     |                          |                          |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. The copyright symbol and statement are on the bottom of page ii, and they are as specified by the Supplementary directives for the drafting and presentation of ISO 10303 (SD). (See 4.2.2 of the SD). |
|                                     |                          |                          | Comments: has been corrected  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. The correct copyright symbol appears on page 1. (See 4.1.4 of the SD).   |
|                                     |                          |                          | Comments: has been corrected  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Each page of the document has the correct page header with the copyright symbol. (See 4.1.1 of the SD.)  |
|                                     |                          |                          | Comments: has been corrected  |

## COVER PAGE

- |                                     |                          |                          |  |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. The cover page has the correct format, structure and content. (See 4.2.1 and annex A of the SD, <a href="http://www.nist.gov/sc4/editing/cover/">http://www.nist.gov/sc4/editing/cover/</a> , and <a href="http://www.nist.gov/sc4/editing/cover/cov_read.htm">http://www.nist.gov/sc4/editing/cover/cov_read.htm</a> .)  |
|                                     |                          |                          | Comments: and as per QC176   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. The ballot stage (WD, CD, DIS, or FDIS), standard number (10303, 13584, etc.), part number with current ballot cycle for the ballot stage appear correctly on the cover. (See 4.1.4 of the SD, <a href="http://www.nist.gov/sc4/editing/cover/">http://www.nist.gov/sc4/editing/cover/</a> , and <a href="http://www.nist.gov/sc4/editing/cover/cov_read.htm">http://www.nist.gov/sc4/editing/cover/cov_read.htm</a> .) |

YES NO N/A

Comments:

- |                                     |                          |                                     |   |
|-------------------------------------|--------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. The working group is identified at the top of the page.<br>Comments: has been corrected  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. The N-number is present, identifies a unique document, and matches the WG document log.<br>Comments:   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 8. If the document has been updated, the "Supersedes" field contains the previous N-number.<br>Comments:  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 9. The abstract is present and unambiguous.<br>Comments: has been updated   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 10. The abstract supports the Scope of the part and does not arbitrarily introduce new wording from that in the Scope statement.<br>Comments:   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 11. The keywords are appropriate for searches by interested parties.<br>Comments: several have been added   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 12. The copyright statement is correct for the ballot release stage of the part. WD and CD copyright statements are different than DIS and FDIS. ( <i>See <a href="http://www.nist.gov/sc4/editing/cover/cov_read.htm">http://www.nist.gov/sc4/editing/cover/cov_read.htm</a>.</i> )<br>Comments: has been corrected  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 13. The "Comments to Reader" box contains the required text and other text appropriate for the audience of the part during this ballot cycle. ( <i>See <a href="http://www.nist.gov/sc4/editing/cover/cov_read.htm">http://www.nist.gov/sc4/editing/cover/cov_read.htm</a>.</i> )<br>Comments: As per QC N176   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 14. The project leader and part editor are specified and are as recorded by TC 184/SC4; names, addresses, telephone/FAX numbers, and email addresses are present.<br>Comments:  |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 15. The title follows the rules for upper and lower case letters. Capitalize the first letter of the first word of each element of the title. All other words shall be lower case. There are three elements of the title separated by long dashes ("em dash"): Introductory element; Main element; and Complementary element. For example: Industrial automation systems and integration–Parts library–Part 101: Geometrical view exchange protocol by parametric program.<br>Comments: Wrong Question for the Cover Page |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 16. The part number and title have been verified with the SC4 Secretariat as being the same as that registered by TC 184/SC4 for the project.<br>Comments:  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 17. The date is present in the format YYYY-MM-DD and has been updated to current date.<br>Comments:   |

## TABLE OF CONTENTS

- |                                     |                          |                          |  |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 18. The Table of Contents (TOC) starts on page iii (right-hand side of the document). ( <i>See 4.2.2 of the SD and QC N151.</i> )<br>Comments: has been corrected per SD N858 and as per QC N176 |
|-------------------------------------|--------------------------|--------------------------|--|

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. The Contents heading is in bold-face and is flush left. The word "Page" is normal-weight, flush right on the same line. <i>(See 4.2.2 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. "Scope" is the first entry in the TOC. <i>(See 4.2.2 of the SD.)</i> Comments: Has been corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. The TOC excludes terms defined in clause 3, "Terms and definitions." <i>(See 4.2.2 of the SD and 6.1.2 of IDP3.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. The annexes are listed immediately after the last (sub)clause in the TOC, without an intervening subheading. <i>(See 4.2.2 of the SD and 6.1.2 of IDP3.)</i> Comments: Has been corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. The TOC entries for annexes have the following form: "Annex <letter> (<normative or informative>) <annex title>." <i>(See 4.2.2 of the SD.)</i> Comments: Has been corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. The Bibliography (if present) is listed in the TOC following the last annex and before the Index. <i>(See 4.2.2 of the SD and 6.2.1 of IDP3.)</i> Comments: Has been corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. The Index is present and starts on the page specified by the TOC. <i>(See 4.2.2 of the SD.)</i> Comments: Has been added as per the ATS guidelines
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. The Index is the last entry in the TOC just before the list of figures or tables, if figures and tables are present in the part. <i>(See 4.2.2 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27. All figures and tables have a title, presented in the correct format. <i>(See 4.2.2, 4.5.1 and 4.5.2 of the SD.)</i> Comments: Has been corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28. The list of figures follows the entry for the Index in the TOC as specified by the SD. <i>(See 4.2.2 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29. The list of tables follows the list of figures in the TOC. <i>(See 4.2.2 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30. The page number is correct for each entry in the TOC. Comments: Has been corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31. In the TOC, the list of figures is entitled Figures and the list of tables is entitled Tables. <i>(See 4.2.2 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32. TOC entries have dot leaders with page numbers that follow flush right. <i>(See 4.2.2 of the SD.)</i> Comments:

*The following are STEP specific:*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. In the TOC, 2-space indentation is used following clause numbers. <i>(See 4.2.2 of the SD.)</i> Comments:
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- | YES                                 | NO                       | N/A                      |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 34. Only clause/sub-clause headings and annex headings appear in the TOC. (See 4.2.2 of the SD and 6.2.1 of IDP3.)<br>Comments: |

### FOREWORD

- |                                     |                          |                                     |   |
|-------------------------------------|--------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 35. The Foreword starts with the proper boilerplate. (See 4.2.3.2 of the SD and QC N151):<br>Comments: As per QC N 176  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 36. The Foreword starts on a new page. (See 4.2.3.1 of the SD.)<br>Comments:  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 37. The list of related parts is current, either through referencing the URL or through including the text of the list. (10303 parts see <a href="http://www.nist.gov/sc4/editing/step/titles">http://www.nist.gov/sc4/editing/step/titles</a> , QC N087, and 4.2.3.2 of the SD.)<br>Comments: As per QC N176 |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 38. Text identifying the standard number, part number, designation and name of the committee follows the correct format. (See 4.2.3.2 of the SD.)<br>Comments:  |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 39. Second and subsequent editions include appropriate required text as specified by the SD. (See 4.2.3 of the SD, QC N087 and QC N151.)<br>Comments:   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 40. All issues related to the Foreword have been resolved.<br>Comments:   |

*The following are STEP specific:*

- |                                     |                          |                          |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 41. The normative annexes specified by 4.2.3 of the SD are included.<br>Comments: and as per ATS Guideline SC4 N536               |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 42. The Foreword format and required wording are correct. (See 4.2.3.2 of the SD.)<br>Comments: And as per ATS Guideline SC4 N536 |

### INTRODUCTION

- |                                     |                          |                          |  |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 43. The Introduction starts on a new page. (See 4.2.4.1. of the SD.)<br>Comments: Has been corrected   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 44. The Introduction provides a high-level overview of the part. (See 4.2.4 of the SD and 6.1.4 of IDP3.)<br>Comments: As per the AST Guidelines |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 45. The Introduction states the purpose of the part. (See 4.2.4 of the SD.)<br>Comments: As per the ATS Guideline                                |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 46. The Introduction states the required knowledge necessary for understanding the part.<br>Comments: as per ATS Guideline SC4 N536              |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 47. The Introduction is unambiguous and understandable.<br>Comments:   |

**YES NO N/A**

- ☒ ☐ ☐ 48. The Introduction is consistent with the Scope. *(See 4.2.4 of the SD.)*  
Comments: as per ATS Guideline SC4 N536
- ☒ ☐ ☐ 49. The Introduction does not imply a broader or narrower focus of types of information covered than the Scope statement.  
Comments:

*NOTE - The Introduction may repeat the high level description from the Scope statement.*

- ☐ ☐ ☒ 50. If there are other documents that would aid the user in understanding the technical content of the part, they are identified and properly referenced. *(See 4.2.4. of the SD.)*  
Comments:
- ☒ ☐ ☐ 51. Informative references are cited correctly. *(See 6.6.6 of IDP3.)*  
Comments:
- ☒ ☐ ☐ 52. Informative references to normative documents are cited correctly. *(See 6.6.6 of IDP3.)*  
Comments:
- ☒ ☐ ☐ 53. The figures, tables, NOTES and EXAMPLES are understandable.  
Comments:
- ☒ ☐ ☐ 54. All application-specific terms used in the Introduction are defined in clause 3.  
Comments: several have been added
- ☒ ☐ ☐ 55. There are no requirements stated in the Introduction. *(See 4.2.4 of the SD and 6.1.4 of IDP3.)*  
Requirements are often indicated by the use of the word "shall." Requirements shall be in normative text only, not the Introduction.  
Comments:
- ☐ ☐ ☒ 56. For second and subsequent editions, there is a description of the changes from the previous edition. *(See 4.2.3 of the SD and QC N087.)*  
Comments:
- ☒ ☐ ☐ 57. All issues related to the Introduction have been resolved.  
Comments:

*The following is STEP specific:*

- ☒ ☐ ☐ 58. The Introduction contains the required wording. *(See 4.2.3 of the SD and QC N087.)*  
Comments: as per ATS Guideline SC4 N536

*The following are AP specific:*

- ☐ ☐ ☒ 59. The Introduction states a high-level overview of the part and the application domain. The Introduction explains the industrial need or reason for preparing this part. *(See Guidelines for the development and approval of STEP application protocols (APG) clause 4 and clause 5.)*  
Comments:
- ☐ ☐ ☒ 60. A data planning model shows the relationships of major concepts supported by this AP. *(See APG clauses 3.4.7, 4.)*  
Comments:
- ☐ ☐ ☒ 61. All relationship notation and cardinality has been removed from the lines that represent the relationships in the planning model.  
Comments:

YES NO N/A

- ☐ ☐ ☒ 62. Relationships with other ISO TC 184/SC4 parts have been identified and briefly described.  
Comments:
- ☐ ☐ ☒ 63. If there is planned overlap with other APs, it is indicated in the Introduction.  
Comments:

#### SCOPE

- ☒ ☐ ☐ 64. The required header appears at the top of page 1. *(See 4.1.4 of the SD and QC N151.)*  
Comments: and as per QC N176
- ☒ ☐ ☐ 65. Clause 1 (Scope) begins on page 1. *(See 4.1.4 and 4.3.1 of the SD.)*  
Comments:
- ☒ ☐ ☐ 66. If the Scope includes a statement of applicability, it is introduced by "This International Standard is applicable to..." or "This part of ISO <standard> number is applicable to...." *(See 6.2.1 in IDP3.)*  
Comments: as per ATS Guideline SC4 N536 and QC N176
- ☒ ☐ ☐ 67. The part title matches the title listed by the SC4 Secretariat and registered with ISO for the project.  
Comments: Could not find it on SOLIS used the latest version I had dated 1997
- ☒ ☐ ☐ 68. The title follows the rules for upper and lower case letters. Capitalize the first letter of the first word of each element of the title. All other words shall be lower case. *(See 4.3.1.1 of the SD).* There are three elements of the title separated by long dashes ("em dash"): Introductory element; Main element; Complementary element. For example: Industrial automation systems and integration—Parts library—Part 101: Geometrical view exchange protocol by parametric program.  
Comments: And as per ATS Guideline SC4 N536
- ☒ ☐ ☐ 69. The Scope is unambiguous, conveys the purpose and domain of the part. *(See 4.3.2.1, 6.2, 7.1, and 8.2 of the SD.)*  
Comments: as per ATS Guideline SC4 N536
- ☒ ☐ ☐ 70. The Scope statement defines the extent of the subject matter. *(See 4.3.2.1, 6.2, 7.1, and 8.2 of the SD.)*  
Comments: as per ATS Guideline SC4 N536
- ☒ ☐ ☐ 71. All application-specific terms are defined in clause 3.  
Comments: some have been added
- ☒ ☐ ☐ 72. All information required to understand the context and Scope has been provided.  
Comments:
- ☒ ☐ ☐ 73. Any necessary informative references are cited in informative text, for example, from within NOTES. *(See 4.5.3 and 4.6 of the SD and 6.6.6 of IDP3.)*  
Comments:
- ☒ ☐ ☐ 74. Informative references are cited correctly. *(See 4.6 of the SD and 6.6.6 of IDP3.)*  
Comments:
- ☒ ☐ ☐ 75. The Scope does not contain requirements. *(See 4.3.1.2 of the SD and 6.2.1 of IDP3.)*  
Comments:

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	76. The Scope does not contain introductory material that belongs elsewhere. Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	77. Assumptions or policies that affect the development of the part are not contained in the Scope. These should be documented in other clauses of the part. Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	78. There are no historical or time-dependent references. <i>(See 4.3 of the SD.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	79. The Scope agrees with the project scope recorded by the SC4 Secretariat and registered with ISO for the project. Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	80. The in-scope and out-of-scope statements have been properly separated and stated. <i>(See 4.3.1.2 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	81. NOTES, EXAMPLES, figures, and tables critical to understanding the Scope are provided and referenced. Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	82. The Scope can be traced to requirements for the project that are in-scope for the part. <i>(See 4.3.1.2 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	83. All issues related to the Scope have been resolved. Comments:

*The following are STEP specific:*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	84. The font sizes are correct for the title. <i>(See 4.3.1.1 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	85. The Scope contains the correct required text. <i>(See 4.3.1.2, 6.2, 7.1, and 8.2 of the SD.)</i> Comments: as per ATS Guideline SC4 N536
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	86. Types of products supported are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	87. Types of product data are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	88. Uses of the product data supported are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	89. Accommodated discipline views of the product (for example, electrical versus mechanical discipline views) are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	90. Stages in the life cycle of the product supported are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	91. Types of products not supported are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	92. Types of product data not supported are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	93. Uses of the product data not supported are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	94. Unaccommodated discipline views of the product are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	95. Stages in the life-cycle of the product not supported by the part are included and easily recognized in the Scope statement. <i>(See 7.1 and 8.2 of the SD and 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	96. The Scope is unambiguous and understandable to engineering users, application domain experts, SC4 standardization experts, and software implementers with no STEP experience. Comments:
<i>The following are AP specific:</i>			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	97. The Scope can be traced to in-scope information flows as documented in the AAM of the part. <i>(See 4.1 of the APG.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	98. There is a reference to additional scoping material in the Technical Discussion (Annex L or M), if the annex exists. The reference is made from within a NOTE. <i>(See APG 4.7.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	99. NOTEs, EXAMPLEs, figures, and tables (for example, a data planning model) critical to understanding the Scope are provided. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	100. The required wording is included. <i>(See 8.2 of the SD.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	101. Names of Units of Functionality, Application Objects and AIM elements are not included in the Scope. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	102. There are no requirements on using the AP (or the schema) specified in the Scope. The Scope is not to specify how the standard is to be used. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	103. Assumptions or policies that affect the development of the part are not contained in the Scope. These may be placed in the Technical Discussion annex. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	104. Issues on application terms raised in industry reviews have been resolved. Comments:



YES NO N/A

*The following are PLIB specific:*

- |                          |                          |                                     |   |
|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 105.The Scope statement is complete, concise, and unambiguous, and it clearly conveys the Scope of the part in terms that are understandable to users, library managers, and implementers with little or no PLIB experience.<br><br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 106.The Scope is understandable by members of the PLIB community.   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 107.The Scope contains a bulleted list beginning with "The following <is/are> within the scope of this part of ISO 13584:"<br><br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 108.The in-scope list is followed by a bulleted list beginning with "The following <is/are> outside the scope of this part of ISO 13584:"<br><br>Comments:  |

*The following are view exchange protocol specific:*

- |                          |                          |                                     |  |
|--------------------------|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 109.The opening paragraph of the Scope matches one of the following patterns:<br><br>"This part of ISO 13584 specifies a particular representation category, called <name of category>. This representation category captures the <essence of category>. This representation category may be associated with any of the items defined in a parts library. This part of ISO 13584 also defines how representations that belong to this representation category may be exchanged within a library exchange context by means of <means used to exchange category>."<br><br>"This part of ISO 13584 specifies how representations that belong to the <name of a representation category> may be exchanged by means of <means used to exchange category>."<br><br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 110.The first NOTE of the Scope clause contains the following:<br><br>"NOTE 1 The structure of a library delivery file is defined by a library integrated information model specified in one of the logical resource series parts of ISO 13584."<br><br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 111.The second NOTE of the Scope clause contains the following:<br><br>"NOTE 2 The <b>ISO13584_f_m_iim_schema</b> , documented in ISO 13584-24, is a library integrated information model that defines the structure of a library delivery file. Such a library delivery file may contain instance values that reference the representation category and/or the library external files defined in this part of ISO 13584."<br><br>Comments:  |

## NORMATIVE REFERENCES

- |                                     |                          |                          |  |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 112.All standards and technical specifications referenced in normative text have been identified in clause 2.<br><br>Comments: Have been corrected and as per ATS Guideline SC4 N536   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 113.Normative references to ISO standards that are not yet published (IS) have an em-dash in place of the year of publication, followed by a footnote marker. The footnote text states "To be published". (See 4.3.1.3 of the SD and 6.2.2 of IDP3.) |

YES NO N/A

Comments:

- ☐ ☐ ☒ 114. Every reference listed in clause 2 is found in normative text in a normative clause or annex of this part. This includes USE or REFERENCE statements in EXPRESS. Reminder: EXAMPLES and NOTES are not normative.

Comments:

- ☒ ☐ ☐ 115. For parts at DIS or higher, all ISO standards listed in clause 2 are at least at the DIS stage (registered by ISO/CS or accepted by SC4 Secretariat for DIS ballot).

Comments:

- ☒ ☐ ☐ 116. Each Normative reference provides information that is intended to be part of the specification. If not, the reference shall be placed in the bibliography.

Comments:

- ☒ ☐ ☐ 117. For references that are not TC 184/SC4 parts, the references are complete and they identify what information shall be used (that is, is applicable clause or subclause specified) as part of the specification of this part. (See 4.6 of the SD.)

Comments: has been corrected

*The following is PLIB specific:*

- ☐ ☐ ☒ 118. The Normative references clause is introduced by the following text:

"The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 13584. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 13584 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards."

Comments:

*The following are STEP specific:*

- ☒ ☐ ☐ 119. The Normative references clause is introduced by the following text. (See 4.3.1.3 of the SD):

"The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 10303. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 10303 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards."

Comments: As per QC N176 and as per ATS Guideline SC4 N536

- ☒ ☐ ☐ 120. The format of clause 2 is correct. (See 4.3.1.3 of the SD.)

Comments:

## TERMS, DEFINITIONS, ABBREVIATIONS, AND SYMBOLS

- ☒ ☐ ☐ 121. The title of clause 3 is one of the following. (See 4.3.2.1 of the SD):

☐ Terms and definitions (clause 3 contains terms and definitions only)

☒ Terms, definitions, and abbreviations (clause 3 includes abbreviations)

YES NO N/A

☐ Terms, definitions, and symbols (clause 3 includes symbols)

☐ Terms, definitions, abbreviations, and symbols (clause 3 includes abbreviations and symbols)

Comments:

☒ ☐ ☐ 122.All implementation method terms from ISO 10303-21 and ISO 10303-22 that apply to this part are included in clause 3.

Comments:

☒ ☐ ☐ 123.All application-specific terms used in normative clauses have been defined in clause 3.

Comments: Several have been added

☒ ☐ ☐ 124.The "Other terms and definitions" subclause of clause 3 follows the layout prescribed in the SD and IDP3. (*See 3.2 of the SD and annex C of IDP3.*)

Comments: has been corrected

☐ ☐ ☒ 125.If a definition has been copied from another document, a document reference in brackets follows the prose of the definition.

Comments:

☐ ☐ ☒ 126.If a definition has been adapted from the definition in another document, "NOTE: Adapted from <standard number>" follows the prose of the definition.

Comments:

☐ ☐ ☒ 127.If a definition has been extracted from another document (which may be a standard), the reference is listed the bibliography.

Comments:

☒ ☐ ☐ 128.All abbreviations have been recorded in a separate subclause in clause 3. SC4 discourages the use of abbreviations in EXPRESS names, application object names, and attribute names in SC4 parts. (*See 5.2.2 of the SD.*)

Comments: several have been added

☒ ☐ ☐ 129.The terms listed in clause 3.n ("Other terms and definitions") are not found in other publicly available standards.

Comments:

☒ ☐ ☐ 130.The terms defined in this part are unambiguous, concise, and understandable to engineering users, application domain experts, and software implementers using the part.

Comments:

☒ ☐ ☐ 131.The terms are listed in alphabetical order. (*See 4.3.2.1 of the SD.*)

Comments:

☒ ☐ ☐ 132.All defined terms have non-circular definitions. A definition is considered circular when the term being defined appears in the definition.

Comments:

☐ ☐ ☒ 133.An attempt has been made to standardize the definitions of common terms used in this part.

Comments:

☒ ☐ ☐ 134.Explanatory NOTES, EXAMPLES, figures and tables critical to an unambiguous understanding of each definition are provided.

Comments:

☒ ☐ ☐ 135.Each domain-specific term is used correctly.

YES NO N/A

Comments:

- |                                     |                          |                                     |  |
|-------------------------------------|--------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 136.The definitions meet the "Criteria for lexical definitions". <i>(See annex C of the SD.)</i><br>Comments:  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 137.The required text for clause 3 is present. <i>(See 4.3.2.1 of the SD.)</i><br>Comments: As per QC N176 and as per ATS Guideline SC4 N536   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 138.All elements of clause 3 conform to the requirements specified by the SD. <i>(See 4.3.2.1 of the SD.)</i><br>Comments: as per ATS Guideline SC4 N536                                       |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 139.All AP specific terms from ISO 10303-1 are listed correctly. <i>(See 8.4 of the SD and 4.3 of the APG.)</i><br>Comments: as per ATS Guideline SC4 N536                                     |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 140.All terms used from other TC 184/SC4 parts or standards are listed under a subclause for each part or standard. <i>(See 4.3.2.1 of the SD.)</i><br>Comments: as per ATS Guideline SC4 N536 |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 141.All definitions of terms that conflict with current definitions of other TC 184/SC4 parts have been defined in clause 3.<br>Comments:  |

*The following are AP specific:*

- |                                     |                          |                                     |  |
|-------------------------------------|--------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 142.Each application domain term is accurate and used in accordance with the application domain terminology and usage. <i>(See 8.5 of the SD and 4.4 and 5.3 of the APG.)</i><br>Comments: as per ATS Guideline SC4 N536 |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 143.If the term has common industrial application, the definition notes whether it adheres to common industry usage or deviates from such usage.<br>Comments:  |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 144.SEDS issues have been written calling for adding definitions of common terms to the appropriate general-use documents (ISO 10303-1, -21, -22, -31, etc.)<br>Comments:  |

*The following is PLIB specific:*

- |                          |                          |                                     |   |
|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 145.The opening paragraph matches the following:<br><br>"For the purposes of this part of ISO 13584, the following terms and definitions apply. Some of these terms and definitions are repeated for convenience from <list of all source documents>."<br>Comments: |
|--------------------------|--------------------------|-------------------------------------|---|

## ITEMS IN LISTS

*Requirements on lists are described in SD 4.1.7 and IDP3 5.2.5.*

- |                                     |                          |                          |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 146.Items in bulleted lists are preceded by a long dash ("em dash"). <i>(See 4.1.7 of the SD.)</i><br>Comments: |
|-------------------------------------|--------------------------|--------------------------|---|

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	147. Bulleted lists are limited to a single level. <i>(See 4.1.7 of the SD.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	148. Items in the first level of a numbered list are preceded by lower case letters, followed by a right parenthesis. <i>(See 4.1.7 of the SD.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	149. Items in the second level of a two-level or three-level numbered list are preceded by Arabic numerals, followed by a right parenthesis. <i>(See 4.1.7 of the SD.)</i> Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	150. Items in the third level of a three-level numbered list are preceded by lower case roman letters, followed by a right parenthesis. <i>(See 4.1.7 of the SD.)</i> <b>QC strongly discourages using three level lists.</b> Comments:

## EXAMPLES

*Requirements on EXAMPLEs are described in SD 4.5.4 and IDP3 6.5.1.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	151. Each example is preceded by the word EXAMPLE. Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	152. Each "e.g." notation has been removed from normative text and put into the EXAMPLE format. <i>(See 4.5.4 of the SD.)</i> Comments: has been corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	153. If there is more than one example in a clause or subclause, they are numbered, starting from 1, within each clause or subclause. <i>(See 4.5.4 of the SD.)</i> Comments:

## NOTES

*Requirements on NOTES are described in SD 4.5.3 and IDP3 6.5.1.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	154. Each note is preceded by the word "NOTE". <i>(See 4.5.3 of the SD.)</i> <b>ISO no longer permits the use of the heading "NOTES" followed by a series of numbered items.</b> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	155. If there is more than one NOTE in a clause or subclause, they are numbered, starting from 1, for each clause or subclause. <i>(See 4.1.3 and 4.5.3.2 of the SD.)</i> Comments:

## FIGURES

*Requirements for Figures are described in SD 4.5.2 and IDP3 6.6.4.*

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	156. References to figures are correct. <i>(See 4.5.2 EXAMPLEs are shown in 4.5.2.3 of the SD.)</i> Comments:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	157. Figures are numbered with Arabic numerals beginning with 1 and increasing sequentially throughout the document, and they are independently numbered from tables and clauses. <i>(See 4.5.2.2.1 of the SD.)</i>

YES NO N/A

Comments:

- ☒ ☐ ☐ 158. Figure titles are centered horizontally below the figure. (*See 4.5.2 and see example in 4.5.2.2.3 of the SD*) and laid out to match the following pattern:

**Figure 1 — Title of figure**

Comments: has been corrected

**TABLES**

*Requirements on Tables are described in SD 4.5.1 and IDP3 6.6.5.*

- ☒ ☐ ☐ 159. References to tables are capitalized, e.g., "...see Table 7..." (*See 4.5.1.3 of the SD.*)

Comments:

- ☒ ☐ ☐ 160. Tables are numbered with Arabic numerals beginning with 1 and increasing sequentially throughout the document and they are independently numbered from figures and clauses. (*See 4.5.1.2.1 of the SD.*)

Comments:

- ☒ ☐ ☐ 161. Table titles are centered horizontally above the table as specified in 4.5.1.2 of the *SD* and laid out to match the following pattern:

**Table 1 — Title of table**

Comments: has been corrected

- ☒ ☐ ☐ 162. Tables are laid out correctly. (*See 6.6.5 of the IDP3 and, for AP-specific guidance, 8.6.1 of the SD.*)

Comments: as per ATS Guideline SC4 N536

**BIBLIOGRAPHY**

- ☒ ☐ ☐ 163. All references to Bibliography entries are only made from informative text within this part. (*See 4.4.2 of the SD.*)

Comments: several have been added

- ☒ ☐ ☐ 164. All normative references have been moved to clause 2.

Comments:

- ☒ ☐ ☐ 165. All publications used in the preparation of this part are listed in the Bibliography.

Comments:

- ☒ ☐ ☐ 166. Titles of the bibliographic references are italicized. (*See 4.4.2 and 4.3.1.3 of the SD.*)

Comments:

- ☒ ☐ ☐ 167. The Bibliography (if present) is a distinct element, occurring after the last annex and before the Index. (*See 4.4.2 of the SD.*)

Comments:

*The following is STEP specific:*

- ☒ ☐ ☐ 168. The Bibliography complies with the requirements specified in 4.4.2 of the *SD*.

Comments: has been corrected

YES NO N/A

## INDEX

- |                                     |                          |                          |  |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 169. Dot leaders are used and page numbers are flush right. <i>(See 4.4.3 of the SD.)</i><br>Comments:   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 170. There is an entry in the Index for each word that most users of the part would need to find. <i>(See 4.4.3, 6.7, 7.6, or 8.9 of the SD.)</i><br>Comments: as per ATS Guideline SC4 N536 |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 171. The Index contains definition entries, and is not a concordance. <i>(See 4.4.3 of the SD.)</i><br>Comments: as per ATS Guideline SC4 N536   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 172. The entries in the Index are listed alphabetically. <i>(See 4.4.3 of the SD.)</i><br>Comments:  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 173. The page numbers for each entry in the Index is in fact where that entry is located on that page(s) in this part.<br>Comments:  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 174. There is an entry in the Index for the page location of each definition in clause 3.<br>Comments:   |

*The following is STEP specific:*

- |                                     |                          |                          |  |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 175. The Index is properly formatted as specified by 4.4.3 of the SD.<br>Comments: |
|-------------------------------------|--------------------------|--------------------------|--|

*The following are IR-specific as specified by 6.7 of the SD:*

- |                          |                          |                                     |   |
|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 176. There is an entry in the Index for the page location of the EXPRESS specification of each type.<br>Comments:     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 177. There is an entry in the Index for the page location of the EXPRESS specification of each entity.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 178. There is an entry in the Index for the page location of the EXPRESS specification of each function.<br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 179. There is an entry in the Index for the page location of the EXPRESS specification of each rule.<br>Comments:     |

*The following are AIC-specific as specified by 7.6 of the SD:*

- |                          |                          |                                     |  |
|--------------------------|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 180. There is an entry in the Index for the page location of the definitions of EXPRESS elements for each type.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 181. There is an entry in the Index for the page location of the definitions of EXPRESS elements for each entity.<br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 182. There is an entry in the Index for the page location of the definitions of EXPRESS elements for each function.            |

YES NO N/A

Comments:

☐ ☐ ☒ 183. There is an entry in the Index for the page location(s) of the AIC short listing definitions.

Comments:

☐ ☐ ☒ 184. There is an entry in the Index for the page location(s) of the AIC element in the EXPRESS-G diagrams.

Comments:

*The following are AP-specific as specified by 8.9 of the SD:*

☐ ☐ ☒ 185. There is an entry in the Index for the page location of each UOF definition.

Comments:

☐ ☐ ☒ 186. There is an entry in the Index for the page location of each application object (AO) definition.

Comments:

☐ ☐ ☒ 187. There is an entry in the Index for the page location of each application assertion in which the AO participates.

Comments:

☐ ☐ ☒ 188. There is an entry in the Index for the page location of each AO in the mapping table.

Comments:

☐ ☐ ☒ 189. There is an entry in the Index for the page location of each AO in the ARM diagrams.

Comments:

☐ ☐ ☒ 190. There is an entry in the Index for the page location of each AIM element.

Comments:

☐ ☐ ☒ 191. There is an entry in the Index for the page location of each AIM short listing definition.

Comments:

☐ ☐ ☒ 192. There is an entry in the Index for the page location of each AIM EXPRESS expanded listing.

Comments:

☐ ☐ ☒ 193. There is an entry in the Index for the page location of each AP-specific AIM element that appears in the AIM element column of the mapping table.

Comments:

☐ ☐ ☒ 194. There is an entry in the Index for the page location of each AIM element that appears in the AIM diagrams.

Comments:

☐ ☐ ☒ 195. All AOs are included in the Index.

Comments:

☐ ☐ ☒ 196. For EXPRESS AOs, the page number on which the object's definition appears is presented in bold-face.

Comments:

## EXPRESS DEFINITIONS

☐ ☐ ☒ 197. The EXPRESS schema complies with the structure and required text as specified by clause 5 of the SD.



YES NO N/A

Comments:

- |                          |                          |                                     |  |
|--------------------------|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 198.The schema name is the first EXPRESS construct listed and the schema name is acceptable.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 199.USE FROM and REFERENCE FROM statements appear at the beginning of the schema.<br>(See ISO 10303-11.)<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 200.EXPRESS tail comments are included after the USE FROM/REFERENCE FROM statements identifying the source of interfaced constructs. (See 5.1.4 of the SD.)<br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 201.Locally defined EXPRESS constructs are listed in the proper order (i.e., constants, types, entities, rules, and functions).<br>Comments:                             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 202.Referenced functions are defined.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 203.Each function is used at least once, or the justification for not using it is provided in a Note.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 204.The rules for EXPRESS usage have been applied consistently. (See Guidelines for Application Interpreted Model Development.)<br>Comments:                             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 205.The name of each EXPRESS construct is appropriate for the intent of the construct.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 206.The EXPRESS construct name is not prefixed with the schema name as specified by the SD.<br>(See 5.2.2.2 of the SD.)<br>Comments:                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 207.The EXPRESS construct name does not contain any abbreviations that are not included clause 3. (See 5.2.2.4 of the SD.)<br>Comments:                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 208.Names of EXPRESS construct attributes reflect the role the type of the attribute plays in the definition of the parent entity.<br>Comments:                          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 209.The names of EXPRESS constructs are nouns for entities, application objects, and attributes and verbs for actions, e.g., rules, functions.<br>Comments:              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 210.The format, structure, and organization of the EXPRESS construct are. (See 5.1, 5.2, 5.3, and 5.4 of the SD.)<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 211.The definition of each EXPRESS construct is unambiguous and understandable.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 212.The EXPRESS construct definition defines the concept. (It should not restate the EXPRESS.)<br>Comments:  |

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	213.The EXPRESS construct definition is grammatically correct. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	214.The EXPRESS construct definition adheres to the rules for good definitions. (See SD annex C.) Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	215.The EXPRESS declaration and definition correspond. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	216.The EXPRESS definition is consistent with the semantics of the IR that it specializes. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	217.The EXPRESS construct definition refers to outside works or other sections. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	218.Illustrations, EXAMPLEs, or explanatory NOTEs needed to understand the EXPRESS construct definition are provided. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	219.All propositions are written as formal propositions where possible. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	220.All constraints have been moved to a supertype or global rule where possible. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	221.There are no constraints on the entity supertype that conflict with formal or informal proposition. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	222.For the schema overall, there are no name conflicts among any of the EXPRESS constructs. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	223.The schema has been compiled successfully using multiple EXPRESS compilers. Comments:

*The following are STEP specific:*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	224.For an AP, USEd AICs are listed first (alphabetically), followed by USEd resource schemas (in alphabetical order). Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	225.EXPRESS constructs are listed alphabetically in each schema USE FROM (in APs and AICs)/REFERENCE FROM (in IRs) statement. Comments:

*The following are AP specific:*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	226.Each specialized resource construct originates from an entity listed in the USE FROM statements. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	227.For each specialized AIM element in the mapping table (i.e., source is this AP), there is an EXPRESS construct that references the correct resource construct, as specified in the reference path of the mapping tables. Comments:

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	228.Each USE FROM statement element is referenced at least once in the reference paths of the mapping tables. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	229.All rules are listed in the mapping table. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	230.The rule name from the mapping table list matches the rule name in the short form. Rules are listed in the same order as the mapping table list (alphabetically). Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	231.Each AIM element in the mapping table is specified in a USE FROM statement or specialized resource construct in the EXPRESS short form. Comments:

### EXPRESS-G DIAGRAMS

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	232.Off-page references in EXPRESS-G diagrams are consistent (i.e., these references can be followed across diagrams). Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	233.Off-page references in EXPRESS-G diagrams are done correctly as specified by ISO 10303-11, annex D. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	234.All entities, attributes, enumeration types, select types, subtypes, and supertypes from the EXPRESS schemas are depicted in EXPRESS-G diagrams. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	235.The diagrams use EXPRESS-G as specified in ISO 10303-11 annex D. For STEP EXPRESS-G diagrams, defined types whose domains are base types are omitted. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	236.Heavy lines are used for supertype/subtype relationships. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	237.Dashed lines are used for optional attributes and schema to schema references. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	238.Normal lines are used for other relationships. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	239.Dashed rectangles with a left double vertical line are used for SELECT types. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	240.Dashed rectangles with a right double vertical line are used for ENUMERATION types. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	241.Dashed rectangles are used for a type. Comments:

*The following is STEP specific:*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	242.The EXPRESS-G complies with the required text, minimum font size, figure label, and other layout format rules as specified by the SD.
--------------------------	--------------------------	-------------------------------------	---

YES NO N/A

Comments:

### AAM DIAGRAMS

- |                          |                          |                                     |   |
|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 243.The diagrams clearly indicate with an asterisk (*) the activities that are out-of-scope.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 244.The diagrams clearly indicate with an asterisk (*) the data flows that are out-of-scope.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 245.The IDEF0 modeling methodology has been used correctly. ( <i>See FIPS Publication 183.</i> )<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 246.Decomposition has been done correctly and is labeled appropriately.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 247.There are an appropriate number of activities (5 is recommended +/- 2).<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 248.All model objects are labeled with an identifier.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 249.The in-scope information flows in the AAM can be traced to concepts listed as in-scope in clause 1.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 250.The AAM completely covers the scope.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 251.No out-of-scope activities or Inputs, Outputs, Controls, or Mechanisms (ICOMs) are found in the list of in-scope items in clause 1.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 252.Life-cycle stages referenced in clause 1 are shown on the AAM diagrams.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 253.If the intent in the scope is to provide for process or technology advances that are beyond the state of the industry practices, a to-be AAM is provided. The as-is and to-be AAMs are both provided, if required per the scope statement.<br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 254.There is a logical decomposition of activities and levels.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 255.There is a logical flow of activities and information in the AAM diagrams. The AAM shall not reflect any specific enterprise's method of doing business.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 256.The modeling methodology is identified, i.e., IDEF0.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 257.A summary statement of conventions is provided.<br>Comments:  |

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	258. Model objects have been appropriately named (verbs used for activities, and nouns used for ICOMs). Comments:

#### AAM DEFINITIONS

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	259. The out-of-scope definitions are clearly indicated. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	260. Each data activity and information flow is defined. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	261. The definitions are understandable and sufficient for the engineering users, application domain experts, and software implementers. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	262. NOTES, EXAMPLES, and figures critical to understanding the definitions are provided. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	263. If aliases were created for data, they are included with the definitions. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	264. The definitions are consistent with the names of activities and information flows. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	265. There is a definition for each data activity and information flow. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	266. The application domain terminology is used correctly. Comments:

#### AAM TOTAL

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	267. All of the necessary informative references are cited and cited correctly. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	268. The annotation used to identify the out-of-scope definitions is consistent with what is used in the diagrams. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	269. Reviews were conducted with industry experts other than experts that are part of the AP development team. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	270. Issues from these reviews with industry experts are documented in the issue log. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	271. Industry experts understand and agree with the AAM. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	272. All necessary information about each activity in the AAM has been provided. It was verified by industry experts. Comments:

**YES      NO      N/A**

- |                          |                          |                                     |  |
|--------------------------|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 273.The activities in the AAM are decomposed to a level that allows the activities and the information flows to be clearly understood and accepted by industry experts.<br>Comments: |
|--------------------------|--------------------------|-------------------------------------|--|

### SCOPE AND AAM EVALUATION REPORT

- |                          |                          |                                     |  |
|--------------------------|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 274.Industry experts agree with high level description of information requirements. Any outstanding issues are documented in the project Issue Log.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 275.A schedule of planned industrial reviews, an AP Scope and AAM summary packet, and request for participation was sent to all ISO TC184/SC4 P-member countries and to all industry organizations listed on the AP proposal.<br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 276.The report identifies which industries were represented at each review and when the reviews were conducted.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 277.Representatives for all disciplines that are covered in the AP scope were present at the reviews. Reviewers included individuals not on the development team.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 278.The report includes a list of the expert reviewers with their qualifications, industry affiliation, and the countries in which they have practiced their disciplines of expertise.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 279.The report includes summaries of the reviews, comments, and evaluations, and an issue log with the issues resolved.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 280.Industrial reviewers understand the scope of the AP.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 281.Industrial reviewers agree with the scope of the AP.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 282.Industry experts understand the AAM diagrams.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 283.Industry experts agree with the AAM diagrams.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 284.Industry experts understand the AAM definitions.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 285.Industry experts agree with the AAM definitions.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 286.The report includes an issue log showing how the issues have been resolved and which issues are still open.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 287.All major scope and AAM issues raised through industrial reviews have been closed.<br>Comments:  |

**YES NO N/A**

☐ ☐ ☒ 288.The modeling methodology is understood by industrial experts and reviewers.  
Comments:

### **INFORMATION REQUIREMENTS**

☐ ☐ ☒ 289.A high level summary of information requirements is provided.  
Comments:

☐ ☐ ☒ 290.The information requirements can be traced to the in-scope information flows in the AAM.  
Comments:

☐ ☐ ☒ 291.All information requirements adhere to the Scope.  
Comments:

☐ ☐ ☒ 292.The information requirements are complete.  
Comments:

☐ ☐ ☒ 293.The information requirements are unambiguous and understandable.  
Comments:

☐ ☐ ☒ 294.Adequate illustrations have been provided. The illustrations that are provided unambiguous and helpful.  
Comments:

☐ ☐ ☒ 295.Any necessary informative references are cited and cited correctly.  
Comments:

☐ ☐ ☒ 296.Any necessary normative references are cited and cited correctly.  
Comments:

☐ ☐ ☒ 297.There is a demonstrated industrial need for the information requirements and UOFs in clause 4 and the Scope. The evidence of this Industrial need is documented in the validation report.  
Comments:

### **UOFS**

☐ ☐ ☒ 298.All UOFs adhere to the Scope.  
Comments:

☐ ☐ ☒ 299.The UOF definitions exhaustively define the application (complete coverage).  
Comments:

☐ ☐ ☒ 300.The UOF definitions are unambiguous and understandable.  
Comments:

☐ ☐ ☒ 301.Each UOF name is appropriate to the definition. Names are sufficiently descriptive of the role and meaning of the UOF.  
Comments:

☐ ☐ ☒ 302.The UOFs form a consistent whole. No UOFs overlap or conflict with other UOFs.  
Comments:

☐ ☐ ☒ 303.The relationships between UOFs are described.  
Comments:

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	304.UOFs that are common with other APs are identified. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	305.Domain terminology and English grammar used properly. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	306.All UOFs are defined. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	307.The UOFs have the appropriate level of domain specificity. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	308.Each UOF id is valid for this application domain. Each UOF represented a high level concept required by this specific application domain. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	309.The objects (entities, relationships, attributes, etc.) within each UOF, when taken together, have a distinct meaning. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	310.There are no inconsistencies in the use of ARM elements in UOFs. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	311.Industrial reviewers agree with the information requirements and UOFs. Comments:

#### APPLICATION OBJECTS

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	312.The model objects are appropriately named. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	313.All model objects are identified. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	314.Each definition is understandable and sufficient for the required audience. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	315.NOTEs, EXAMPLes, and figures critical to understanding the definitions are provided. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	316.Domain terminology and English grammar is used properly. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	317.All of the necessary informative references are cited and cited correctly. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	318.All of the necessary normative references are cited and cited correctly. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	319.The definitions are understandable and sufficient for the engineering users, application domain experts, and software implementers. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	320.NOTEs, EXAMPLes, and figures critical to understanding the definitions are provided. Comments:



**YES      NO      N/A**

- ☐ ☐ ☒ 321. Each application object name consistent with its definition.  
Comments:

### **ARM**

- ☐ ☐ ☒ 322. The required wording from *SD* is included.  
Comments:
- ☐ ☐ ☒ 323. The ARM diagrams are legible and structured logically for readability.  
Comments:
- ☐ ☐ ☒ 324. The ARM objects can be traced to the in-scope data flows of the AAM.  
Comments:
- ☐ ☐ ☒ 325. The out-of-scope data is excluded from the ARM.  
Comments:
- ☐ ☐ ☒ 326. All the ARM objects are named. There is a corresponding application object for each object in the ARM diagram.  
Comments:
- ☐ ☐ ☒ 327. The names of the ARM objects are appropriate. The attribute names make sense when read with the corresponding entity name. The names correspond with the definitions.  
Comments:
- ☐ ☐ ☒ 328. The ARM includes all information modeling constructs required by the modeling method used, i.e., EXPRESS-G, or IDEF1X.  
Comments:
- ☐ ☐ ☒ 329. The ARM modeling methodology identified in a NOTE.  
Comments:

### **APPLICATION ASSERTIONS**

- ☐ ☐ ☒ 330. Each assertion constrains defined application objects. The cardinality of the relationship specified.  
Comments:
- ☐ ☐ ☒ 331. There is an assertion for every relationship among ARM objects on the ARM diagrams.  
Comments:
- ☐ ☐ ☒ 332. Specific conventions for the chosen modeling methodology have been followed. (If the ARM is modeled in EXPRESS, SELECT types are listed.)  
Comments:

### **ARM VALIDATION REPORT**

- ☐ ☐ ☒ 333. The report provides a summary of the ARM validation test plan and the validation results.  
Comments:
- ☐ ☐ ☒ 334. The information requirements were validated through the following method:
- ☐ database population and query;
  - ☐ paper population and reference path analysis; and/or

YES NO N/A

☐ prototype implementation.

Comments:

☐ ☐ ☒ 335.ARM validation coverage was assessed. Sufficient coverage was achieved.

Comments:

☐ ☐ ☒ 336.The AP issues log has been maintained and it is provided with the AP Validation Report.

Comments:

☐ ☐ ☒ 337.All issues raised against the ARM have been resolved satisfactorily.

Comments:

☐ ☐ ☒ 338.The experts who contributed to the technical review of the AP and the industries that they represent are identified (to ensure that there has been adequate industry representation).

Comments:

☐ ☐ ☒ 339.The validation test plan was followed.

Comments:

☐ ☐ ☒ 340.Example parts or usage scenarios were used to validate the ARM.

Comments:

☐ ☐ ☒ 341.The rationale for the selection of the example parts and usage scenarios is presented.

Comments: The test cases appear to support the usage scenarios/usage guide

☐ ☐ ☒ 342.All UOFs validated. If not why not.

Comments:

☐ ☐ ☒ 343.All members of the AP development team have reviewed and accepted the ARM.

Comments:

*Industry application expert acceptance:*

☐ ☐ ☒ 344.All the industry organizations specified in the AP project summary were included in the ARM review.

Comments:

☐ ☐ ☒ 345.The ARM diagrams are understandable to the application expert reviewers.

Comments:

☐ ☐ ☐ 346.The ARM uses application specific terminology and rules agreed to by industry experts.

Comments:

☐ ☐ ☒ 347.Industry experts agree that the ARM represents industry's information requirements.

Comments:

☐ ☐ ☒ 348.The UOFs are understandable and accepted by industry experts.

Comments:

☐ ☐ ☒ 349.The ARM appears to be independent from implementation constraints, e.g., exchange structure, SDAI.

Comments:

YES NO N/A

### INTEGRATED RESOURCES INTERPRETATION REPORT

- |                          |                          |                                     |   |
|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 350.The interpretation report adequately describes the high-level decisions that were made during the interpretation process.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 351.References to the integrated resources identify the N-number and date.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 352.The integrated resource entities that fully satisfy application requirement have been listed. This list agree with USE statements in clause 5.2, EXPRESS short form.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 353.Template structures from ISO 10303-41 annex C have been used consistently where needed.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 354.The rationale for choosing one integrated resource construct over another has been documented.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 355.The need for specialization of Integrated Resource constructs has been documented (explanations should include a short synopsis of the AP's need). These specializations match those referenced in the EXPRESS short form.<br>Comments: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 356.Structural (e.g., subtypes, attributes, and select types) specializations of resource constructs have been identified. They match those referenced in the mapping table.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 357.Specializations have been agreed to and reviewed by WG12 and the AP project team.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 358.Each specialization is consistent with the intent of the resource entity.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 359.The rules for application interpretation of integrated resource constructs have been applied consistently. ( <i>See Guidelines for AIM development.</i> )<br>Comments:  |

### MAPPING TABLE

- |                          |                          |                                     |   |
|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 360.The mapping table complies with the structure and required text specified in the <i>SD</i> and <i>Guidelines for development of mapping tables</i> .<br>Comments:                             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 361.The mapping table is organized alphabetically by UOF and then alphabetically by application object within the UOF.<br>Comments:   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 362.Each UOF is included and is mapped in a sub-table within the mapping table.<br>Comments:  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 363.Each application object (AO), AO attribute, and application assertion specified in clauses 4.2 and 4.3 of the AP appear in the left-hand column of the ARM to AIM mapping table.<br>Comments: |

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	364. There is at least one AIM element listed for each mapping. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	365. The source part number for the AIM element is identified. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	366. Each AIM element whose source is an IR or AIC is listed in a USE FROM statement in clause 5.2, the AIM short form. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	367. There is an AIM element in the mapping table for each application specialization in clause 5.2, the AIM short form. The AP part number is listed in the Source for each one. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	368. Product_context and application_context are included as AIM elements except when these are included through an AIC. ( <i>ISO 10303-41 requirement, see 6.4 and 5.3 respectively.</i> ) Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	369. For each entry in the mapping table, reference paths use proper notation per <i>Guidelines for the development of mapping tables</i> . Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	370. An alphabetical listing of rules is provided at the end of the mapping table. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	371. Each rule number is used at least once in the rule column of the mapping table. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	372. There is an explicit reference provided in a USE FROM if the AIM element is a function or a rule. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	373. Each application specific rule in the AIM short form is referenced in the list of rules at the end of the mapping table. Comments:

#### AIM EXPRESS EXPANDED LISTING

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	374. All SUBTYPEs or SELECTs belonging to USE FROM constructs are used. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	375. All entities of a SELECT type in the long form equal those entities in the USE FROM of the short form in scope. Comments:

#### AIM SHORT NAMES

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	376. Unique abbreviations were generated using the STEP name repository (NIST maintains this.) Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	377. The table format and required wording conform to the <i>SD</i> for AIM short names (4.8.1.2). Comments:

YES NO N/A

### AIM VALIDATION REPORT

☐ ☐ ☒ 378. Sample test pieces, NOTES, EXAMPLES, and figures that are critical to understanding the AIM Validation Report are provided.

Comments:

☐ ☐ ☒ 379. The AIM has been populated with the same test cases that were developed for the ARM.

Comments:

☐ ☐ ☒ 380. The sample test cases and data support the defined constraints.

Comments:

☐ ☐ ☒ 381. The AIM provides access paths to support usage in realistic applications and application requirements.

Comments:

### CONFORMANCE CLASSES AND CONFORMANCE REQUIREMENTS

☐ ☐ ☒ 382. Necessary informative references are cited and cited correctly.

Comments:

☐ ☐ ☒ 383. The conformance requirements are numbered sequentially starting with 1.

Comments:

☐ ☐ ☒ 384. The conformance requirements are understandable.

Comments:

☐ ☐ ☒ 385. The conformance requirements are sufficient to meet the requirements of industry.

Comments:

☐ ☐ ☒ 386. The conformance requirements are consistent with the scope and information requirements.

Comments:

☐ ☐ ☒ 387. The required wording and table format conform to 4.8.1.2 of the *SD*.

Comments:

☐ ☐ ☒ 388. There is a distinct boundary established for each conformance class.

Comments:

☐ ☐ ☒ 389. Each AIC used is specified in the conformance class definition.

Comments:

☐ ☐ ☒ 390. If there are any options identified, each option identifies the AIM elements to which it applies.

Comments:

☐ ☐ ☒ 391. Conformance class definitions adhere to the standards of proper grammar.

Comments:

☐ ☐ ☒ 392. The conformance requirements are independent of implementation method.

Comments:

### PICS PROFORMA

☐ ☐ ☒ 393. The required wording and format conform to 4.8.1.4 of the *SD*.

**YES NO N/A**

Comments:

☐ ☐ ☒ 394.The PICS is consistent with the conformance classes and options.

Comments:

### **IMPLEMENTATION METHOD SPECIFIC REQUIREMENTS**

☐ ☐ ☒ 395.All of the necessary informative references are cited and cited correctly.

Comments:

☐ ☐ ☒ 396.These implementation requirements are understandable and consistent with the normative references.

Comments:

### **AP IMPLEMENTATION AND USAGE GUIDE**

☐ ☐ ☒ 397.All of the necessary informative references are cited and cited correctly.

Comments:

☐ ☐ ☒ 398.The usage guide is understandable and consistent with the rest of the AP.

Comments:

☐ ☐ ☒ 399.The understandability and the utility of the usage guide have been tested in multiple production environments.

Comments:

☐ ☐ ☒ 400.The original reviewers of the scope and information requirements used and reviewed the usage guide.

Comments:

☐ ☐ ☒ 401.All issues raised against the usage guide have been resolved.

Comments:

### **AP VALIDATION REPORT**

☐ ☐ ☒ 402.All deficiencies in previous editions of the AP have been resolved.

Comments:

☐ ☐ ☒ 403.All problems have been resolved to ensure consistency of usage of AICs with other APs.

Comments:

### **TECHNICAL DISCUSSIONS**

☐ ☐ ☒ 404.Any necessary informative references are cited and cited correctly. Referenced documents help explain the issues or how they were used to reach a decision.

Comments:

☐ ☐ ☒ 405.The "Technical discussions" annex presents any issues and resolutions that were significant to the AP development important to the understanding of the part.

Comments:

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	406.Each issue is understandable by someone not involved in the part's development. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	407.Each issue sheds light on the reason for the development of the part or on technical decisions made during the development. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	408.The discussions contribute to the technical understanding of the content of the part. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	409.The "Technical discussions" annex is more than a summary of issues against the part. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	410.If the relationship between this part and another part is discussed, the other part appropriately referenced. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	411.If illustrations or EXAMPLEs are needed, they are included and they are understandable. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	412.The discussion includes a list of alternatives and choices examined, the pros and cons of alternatives, an assessment of impact internally and externally, a resolution and reasons for selecting the alternative for the resolution. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	413.The resolution of each issue satisfies an industrial need of the AP. Each resolution is consistent with the stated scope of the AP. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	414.The discussion/issue resolution is independent of any hardware/software/application considerations (such as implementation levels). Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	415.The rationale for choosing a resolution considers legal aspects. It avoids favoring any particular group, company or implemented system. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	416.The format adheres to the SD. Comments:

#### ISSUES LOG

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	417.The Issues Log is up-to-date with the version of the document under reviewed. Comments: As yet there is no issue log for the ATS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	418.Issues have been documented and reviewed on a routine and recurring basis. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	419.There are no major technical issues remaining open or deferred. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	420.There are no minor technical issues remaining open or deferred. Comments:
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	421.All issues were resolved without impacting the scope of this part or other elements of this document.

**YES    NO    N/A**

Comments:

☐    ☐    ☒    422. Issues have been resolved to the satisfaction of the development team.

Comments:

☐    ☐    ☒    423. Issues have been resolved to the satisfaction of the review team and other industrial reviewers.

Comments:

## **APPROVAL**

I have reviewed and verified the items on this document.

Jesse L. Crusey  
\_\_\_\_\_  
Name

5/3/01  
\_\_\_\_\_  
Date